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3M™ Double Coated Tape 9500PC

Product Description

Finite Element Analysis (FEA) data is available for this product at: 3m.com/FEA

3M™ Double Coated Tape 9500PC features a thin polyester film for dimensional stability and improved handling with ease of die-cutting and laminating. 3M™ Adhesive 350 is a medium-firm acrylic adhesive that provides a combination of high wet grab and initial adhesion and good shear holding power to a wide variety of materials, including many plastics.

Product Features

- 3M™ Adhesive 350 is a firm acrylic adhesive that provides very high adhesion to a wide variety of materials, excellent shear holding power, high temperature resistance and excellent UV resistance.
- 3M adhesive 350 provides exceptional temperature and chemical resistance and withstands tough application environment.
- 3M™ Double Coated Tape 9500PC has a moisture resistant liner which can withstand high humidity conditions with minimal cockling or wrinkling.
- This tape has a film carrier, which can add dimensional stability to substrates. The carrier also provides easier handling during slitting and die-cutting.



Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Property	Values		Attribute Modifier	Notes
Total Tape Thickness without liner	0.14 mm	5.6 mil		
Carrier Thickness	0.025 mm	1 mil		
Adhesive Type	350		Faceside	Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.
Adhesive Type	350		Backside	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
Adhesive Carrier	Clear PET (Polyester)			
Liner	Polycoated Kraft			
Liner Color	Natural		Primary	
Liner Thickness	0.11 mm	4.5 mil		

Adhesive Thickness		Attribute Modifier	Notes
0.058 mm		Backside	The caliper listed is based on a calculation from manufacturing controlled adhesive coat weight. While past data pages have listed nominal thicknesses of 1 and 2 mils, the coat weight (and theoretical caliper) has not changed.
2.3 mil		Backside	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
0.058 mm	2.3 mil	Faceside	Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.

Property: Adhesive Thickness

Typical Performance Characteristics

90° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Temp C	Temp F	Substrate	Backing	Notes
7.7 N/cm		15	min	22C	72F	Stainless Steel	2 mil Aluminum Foil	

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Typical Performance Characteristics (continued)

90° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Temp C	Temp F	Substrate	Backing	Notes
71 oz/in		15	min	22C	72F	Stainless Steel	2 mil Aluminum Foil	12 in/min (300 mm/min)
10.1 N/cm	93 oz/in	72	hr	22C	72F	Stainless Steel	2 mil Aluminum Foil	12 in/min (300 mm/min)
13.2 N/cm	121 oz/in	72	hr	70C	158F	Stainless Steel	2 mil Aluminum Foil	12 in/min (300 mm/min)
8.1 N/cm	74 oz/in	72	hr	22C	72F	ABS	2 mil Aluminum Foil	12 in/min (300 mm/min)
4.8 N/cm	44 oz/in	72	hr	22C	72F	Polypropylene (PP)	2 mil Aluminum Foil	12 in/min (300 mm/min)
6.5 N/cm	60 oz/in	72	hr	22C	72F	Polycarbonate (PC)	2 mil Aluminum Foil	12 in/min (300 mm/min)
8.4 N/cm	77 oz/in	72	hr	22C	72F	Polyester (PET)	Aluminum Foil	
3.6 N/cm	33 oz/in	72	hr	22C	72F	High Density Polyethylene (HDPE)	2 mil Aluminum Foil	12 in/min (300 mm/min)

Property: 90° Peel Adhesion
 Method: ASTM D3330
 Environmental Condition: 52%RH

Relative High Temperature Operating Ranges		Test Condition
177 °C	350 °F	Short Term (minutes, hours)
93 °C	200 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

Property	Values	Method	Test Conditions	Notes	Dwell Time	Dwell Units	Temp C	Temp F	Environmental Condition	Substrate	Backing
Static Shear	10000 min	ASTM D3654	1000 g @ Room Temperature	0.5 in² sample size							

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Typical Performance Characteristics (continued)

Property	Values		Method	Test Conditions	Notes	Dwell Time	Dwell Units	Temp C	Temp F	Environmental Conditions	Substrate	Backing
Static Shear	10000	min	ASTM D3654	500 g @ Room Temperature	0.5 in ² sample size							
180° Peel Adhesion	15.3 N/cm	140 oz/in	ASTM D3330		12 in/min (300 mm/min)	72	hr	22C	72F	52%RH	Stainless Steel	Aluminum Foil

Available Sizes

Property	Values		Attribute Modifier
Note	Subject to Minimum Order Requirements		
Standard Roll Length	33 m	36 yd	
Minimum Available Width	6.35 mm	1/4 in	
Maximum Available Width	1220 mm	48 in	
Normal Slitting Tolerance	0.8 mm	±1/32 in	
Core Size	76.2 mm	3 in	ID

Maximum Length		Width
132 m	144 yd	1/4in - 1/2in
329 m	360 yd	1/2 in - 48in

Property: Maximum Length

Handling/Application Information

Application Ideas

- Dissimilar materials joining, such as metal to plastic.
- High performance joining and bonding.

Handling/Application Information (continued)

Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improves bond strength.

To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Some typical surface cleaning solvents are isopropyl alcohol or heptane.* Ideal tape application temperature range is 70°F to 100°F (21°C to 38°C). Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

*Carefully read and follow the manufacturer’s precautions and directions for use when working with solvents.

Application Equipment

To apply adhesives in a wide web format, lamination equipment is required to ensure acceptable quality. To learn more about working with pressure-sensitive adhesives please refer to technical bulletin, Lamination Techniques for Converters of Laminating Adhesives (70-0704-1430-8).

For additional dispenser information, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-362-3550.

Storage and Shelf Life

Store in original cartons at 70°F (21°C) and 50% relative humidity.

If stored under proper conditions, product retains its performance and properties for 24 months from date of manufacture.

Trademarks

3M is a trademark of 3M Company.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Double-Coated-Tape-9500PC?N=5002385+3293241557&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=9500PC

Family Group

	9500PC	9500B	9593	3028EK
Adhesive Type Attribute Modifier: Faceside	350	350	350	350
Relative High Temperature Operating Ranges (°C) Test Condition: Short Term (minutes, hours)	177	177	177	177
Relative High Temperature Operating Ranges (°C) Test Condition: Long Term (days, weeks)	93	93	93	93

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3M™ Double Coated Tape 9500PC

Family Group (continued)

	9500PC	9500B	9593	3028EK
Adhesive Thickness (mm) Attribute Modifier: Backside	0.058	0.058	0.038	0.058
Liner Color Attribute Modifier: Primary	Natural	Natural	White	White
Adhesive Type Attribute Modifier: Backside	350	350	350	350
Adhesive Thickness (mm) Attribute Modifier: Faceside	0.058	0.058	0.038	0.058
Total Tape Thickness without liner (mm)	0.14	0.14	0.089	0.14
Carrier Thickness (mm)	0.025	0.025	0.013	0.025
Adhesive Carrier	Clear PET (Polyester)	Black PET (Polyester)	Clear PET (Polyester)	Clear PET (Polyester)
Liner	Polycoated Kraft	Polycoated Kraft	55# Densified Kraft	Extensible Kraft
Liner Thickness (mm)	0.11	0.11	0.081	0.14

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

Recognition/Certification

MSDS: 3M has not prepared a MSDS for these products which are not subject to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, the products should not present a health and safety hazard. However, use or processing of the products in a manner not in accordance with the directions for use may affect their performance and present potential health and safety hazards.

TSCA: These products are defined as articles under the Toxic Substances Control Act and therefore, are exempt from inventory listing requirements.

Information

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